Power Xpress Charge Station

BOSCH

en Installation and Operating Instructions

Technical Support
1-877-805-EVSE (3873)

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Safety

Save these instructions. Read all instruction before installing or using the Power Xpress Charge Station.

⚠ WARNING: Turn OFF the circuit breaker at the service or distribution panel before performing any electrical work or repairs.

⚠ WARNING: The Charge Station must be installed by a licensed electrician in accordance with all local electrical codes, ordinances, and all authorities having jurisdiction.

⚠ WARNING: Do not install the Charge Station near flammable, explosive, or combustible materials. Do not locate or store flammable, explosive, or combustible materials near the Charge Station.

⚠ WARNING: The Charge Station contains no user-serviceable parts. Do not attempt to repair or service the Charge Station yourself. If the Charge Station requires servicing, contact Bosch.

⚠ WARNING: Adult supervision is required when using the Charge Station around children.

⚠ WARNING: Do not put flngers into the Charge Station electric vehicle connector.

⚠ WARNING: Disconnect main service power to the Charge Station before cleaning the unit. Do not use cleaning solvents to clean any part of the Charge Station. Clean enclosure, cable and connector with a clean, dry cloth to remove dust and dirt accumulation.

⚠ WARNING: If the device repeatedly trips, seek advice from Bosch.

⚠ WARNING: Use/operate Charge Station: (1) In a well-lit area and away from high pedestrian traffic to avoid accidental tripping hazard. (2) away from areas of child activity to avoid potential shock hazards.

⚠ WARNING: Disconnect main service supply or unplug unit to achieve electrical isolation.

⚠ WARNING: Do not tamper with or modify this device.

⚠ WARNING: If Charge Station fails to operate correctly in accordance with the operation manual, do not use this device. Contact Bosch for repair or replacement.

⚠ WARNING: Improper installation of the Charge Station can result in personal injury or product damage.

⚠ WARNING: This Charge Station installation guide is not a substitute for electrical safety precautions.

⚠ WARNING: Use this Charge Station within the specified operating parameters. Failure to do so may result in injury or death.

⚠ WARNING: Locate and install this Charge Station in a location where the charge cable will not be stepped on, tripped over, or subject to damage or stress.

⚠ WARNING: The Charge Station must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal on the Charge Station.

⚠ CAUTION: Incorrect installation of the Charge Station can result in damage to the vehicle's battery and to the Charge Station itself. These damages will void the warranty for the vehicle and the Charge Station.

⚠ CAUTION: Do not operate the Charge Station in temperatures beyond its operating range of -40°F to +122°F (-40°C to +50°C).

Regulatory Information

Environmental Considerations

At the end of service life, the Charge Station should be recycled according to local laws and regulations.

Product Specification

All Charge Station specifications and descriptions are accurate at the time of this document's printing. We always strive to constantly improve and update our products, Bosch reserves the right to make changes at any time, without notice and without obligation.

FCC Declaration of Conformity

This device complies with Part 15 Class-B of the FCC rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

Non-authorized changes or modifications to this product could void its FCC compliance.

Radio and Television Interference

The equipment described in this manual has been designed to protect against Radio Frequency Interference (RFI). However, there are some instances where high-powered radio signals or nearby RF-producing equipment (such as digital phones, RF communications equipment, etc.) could affect Charge Station operations. If interference to the Charge Station occurs during charging, contact Bosch.

Agency Approvals

Standard Compliances through a National Registered Testing Lab (NRTL)

North American Operation
FCC Part 15 Class-B
UL 2594
UL 2251
UL 62
UL 60950-1
UL 1998
UL 2231-1 & -2
CSA C22.2 #60950-1
CSA C22.2 #107.1
SAE J1772
NEC Article 625

European Union Operation
IEC 61851-1
IEC 61851-21 & -22
IEC 60950-1
IEC 61000-6-1 EMC Immunity
IEC 61000-6-3 EMC Emissions
IEC 62196 Coupler, Type 1, Type 2
IEC 60204-1, Safety for servicing electronic equipment

Features and Specifications

The Charge Station includes ground-fault protection, automatic reset upon grid power loss, ground assurance monitoring, and self-testing capabilities. Manual resetting of the Charge Station is not necessary. Exception: European models require manual resetting after ground fault condition.

Ground-fault protection

Continually provides a safe power supply to the vehicle. If a ground fault is present, the Charge Station detects it and cuts power flow, protecting people and the vehicle from an electric shock hazard.

Automatic reset

If main line side power supply is interrupted during charging, the Charge Station will reset itself automatically and re-attempt charging after main line side power supply is restored.

If the problem is associated with a ground fault, the Charge Station makes a total of 4 automatic reset attempts in sequential 15-minute periods. If the charging mode can not be restored, the appropriate failure indication will be shown on the unit's front panel. NOTE: Not applicable on European models; European models require pressing of the master clear "Reset" button on the front panel of the Charge Station to restore power.

See Table-A in Operating Instructions for LED status indications (page 11).

The automatic reset feature assures that your vehicle will be charged and ready to use by automatically restoring power after temporary interruptions (grid-power outages, temporary ground faults [US models only] and power surges).

Ground Assurance Monitoring

A proper electrical ground is critical to reliable ground-fault protection, the Charge Station includes a ground monitoring circuit to assure presence of a safe electrical ground.

Self-testing

To assure proper functionality and safety, the Charge Station includes self-testing and diagnostics circuitry, which is automatically performed prior to each charging cycle.

Product Features

Voltage and Wiring (120V above ground)	• 240VAC single-phase: L1, L2, and safety ground. • • 208VAC 3-phase, wye-connected: Any 2 phases and safety ground. • 240VAC 3-phase, delta-connected: with center tap on one leg, use only the two phases on either side of the center tap. The two phases must both measure 120V AC to ground. Do not use the third leg (208V “stinger”)
Voltage and Wiring (230V above ground - Europe)	230V AC single-phase: LINE, NEUTRAL, and EARTH
Current and Frequency	Current—Model dependent; see unit specification label 50/60Hz
Cable Length and Connector	Maximum 25 ft (7.6 m) per NEC 625—Model dependent; see unit specification label (18 ft (5.5 m) typical)
Dimensions	14.5 in. (368.3 mm) height × 5.2 in. (132 mm) width × 4.3 in. (109.2) depth
Weight	Approximately 16 pounds w/25 ft (7.6 m) cable and coupler
Operating Temperature Storage Temperature	-40°F to +122°F (-40°C to +50°C) -58°F to +176°F (-50°C to +80°C)
Ratings and Agency Approvals	Enclosure Type NEMA 4X – indoor/outdoor use, watertight • ETL approved to UL and CSA standards• • CE compliant w/3rd-Party ETL testing• • FCC Part 15 Class-B compliant

Technical Specifications

Output Amperage	32A Max, Model Dependent (see output spec. label on side of Charge Station)
Input Voltage Range	175 VAC – 264 VAC
Frequency	50/60Hz
Ground Fault Trip Level	17.5 mA (20mA Max)
Ground Assurance	50K ohm Max (North American), 100K ohm Max (Europe)
Surge Protection	6kV @3000A
Operating Humidity	Up to 95% non-condensing @1060hPa
Operating Temperature	-40°F to +122°F (-40°C to +50°C)
Storage Temperature	-58°F to +176°F (-50°C to +80°C)
Ground Fault Test	Automatic at startup (Firmware controlled)
Ground Fault Retry	4 automatic retries @ 15 min. intervals (per UL2231-2)—not applicable to European models
Master Clear	For System Reset (Overrides Ground Fault Retry and all other fault conditions)
Power Indication	Green LED
Charge Status Indicators	• Amber (Ready) • Green (Plugged In) • Green Flashing (Charging) • Red Flashing (Fault)
Enclosure	NEMA 4X & per UL 50E

Package Contents

(1) Charge Station (including attached cord and vehicle coupler) (EL-50600-1)
(1) Wall-mounting bracket (EL-50600-1)
(1) User Manual (EL-50600-7-2)
(1) Wiring chamber cover (EL-50600-3)
(1) Wiring chamber cover label (EL-50600-3)
(4) 3/4-in. (20-mm) No.2 square-drive screws (EL-50600-5)
(1) Rubber grommet (EL-50600-4)
(1) Foam dust cover gasket (EL-50600-4)
(1) 3/4-in. (20-mm) plastic bushing (EL-50600-4)
(1) Small sealing plug (EL-50600-4)
(1) Knockout plug

Optional Kit #1 Contents (EL-50600-2)

(1) Primary-side, 12-in. (305-mm) cable w/molded NEMA 6-30 plug
(1) 3/4-in. (20-mm) NPT cable gland with nut and sealing washer

Optional Kit #2 Contents (EL-50600-5)

(6) #8 × 1 1/4-in. (32-mm) Phillips pan-head screws with plastic drywall anchors
(3) 3/16 × 1 1/4-in. (5 × 32-mm) Phillips tapered-head masonry fastener screws

Tools Suggested for Installation

Stud finder
Tape measure
2-ft (61-cm) level
Chalk line
Pencil
Power drill
#2 Phillips screwdriver
#2 square-head screwdriver
3/16-in. (5-mm) flat-blade screwdriver
3/32-in. (2.5-mm) flat-blade screwdriver
NM (non-metallic) wire stripper
Wire cutters
Wire stripper
Needle-nose pliers
Hammer
Clear silicone
1/16-in. (2-mm) drill bit
1 1/16-in. (28-mm) hole-saw
1/8-in. (4-mm) masonry drill bit
3/16-in. (5-mm) drill bit
Torque screwdriver with #2 Phillips-head bit and 3/16-in. (5-mm) slotted-head bit

Possible Materials Needed

(dependent upon installation type; not provided)

90° Fitting for liquid-tight flex conduit
Male threaded EMT fitting with offset; 3/4-in. (20-mm)
Locking nut for 3/4-in. (20-mm) male EMT with binding screw
Sealing gasket for 3/4-in. (20-mm) male EMT fitting
Male threaded PVC fitting; 3/4-in. (20-mm)
Locking nut for 3/4-in. (20-mm) male PVC fitting
Sealing gasket for 3/4-in. (20-mm) male PVC fitting
PVC jake offset; 3/4-in. (20-mm)
PVC coupler; 3/4-in. (20-mm)
NM, UF, or 3G wire

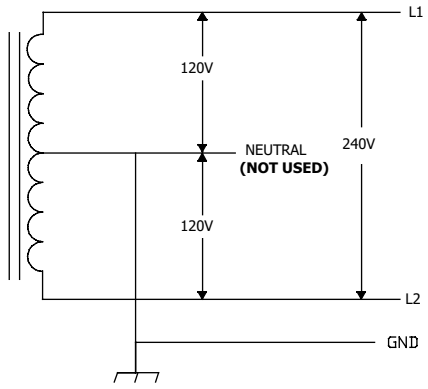
Applicable Electrical Systems

IMPORTANT: Identify the onsite service connection before insthalling the Charge Station. If you are unsure of the available service connection, consult the local utility company or contact Bosch Electric Vehicle Solutions at 1-877-805-EVSE (3873).

The L1, L2, and Ground outputs (H, N for Europe) in the followingillustrations correspond to the inputs on the Charge Station.

For the (earth) ground connection, always connect the neutral at the service panel to earth ground. Ground fault protection is not possible unless the neutral (center tap on the service transformer) is connected to an earth ground.

220/240V Single Phase (North America)

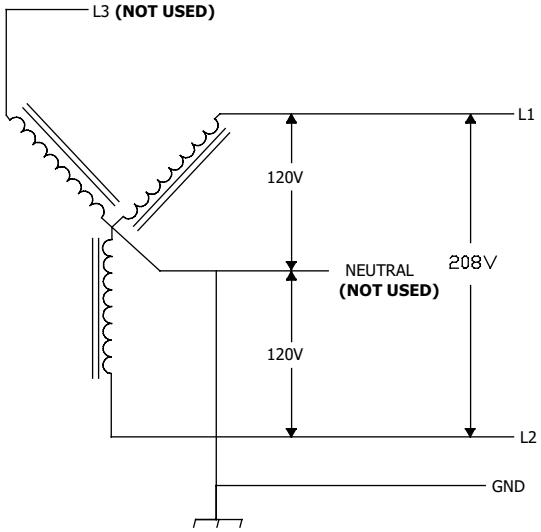


220/240V Single Phase

⚠ WARNING: The Charge Station is a single-phase device. Do not connect all three phases of a 3-phase feed. Only three wires are connected, take care that the service transformer secondary connection is known, and the three wires from the main-panel circuit breaker are correctly connected and labeled.

208V 3-Phase Wye Connection (North America)

Any two of the legs can be used to provide 208V to the Charge Station with a Wye-connected secondary. For example, L1 and L2, or L1 and L3, or L2 and L3. Reference the wiring diagram below.



208V 3-Phase Wye Connection

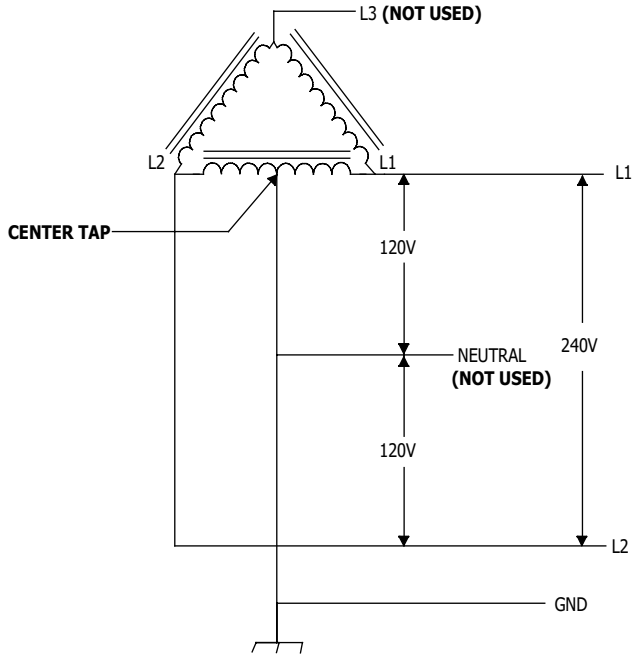
Note:
A current-carrying neutral is not required for the Charge Station for 208V connections.

⚠ WARNING: The Charge Station must be installed by a licensed electrician and in accordance with all local electrical codes, ordinances, and all authorities having jurisdiction.

⚠ WARNING: Do not install the Charge Station near flammable, explosive, or combustible materials. Do not locate or store flammable, explosive, or combustible materials near the Charge Station.

240V 3-Phase Delta Connection (North America) with Center Tap on One Leg

One leg must be center-tapped, and only the two phases on either side of the center tap can be used with the delta connection.



240V 3-Phase Delta Connection

Note:
The third line (L3 on the illustration of the delta) is 208V, with respect to the neutral, and is sometimes referred to as a “stinger.”

⚠ WARNING: Do not use this third line.

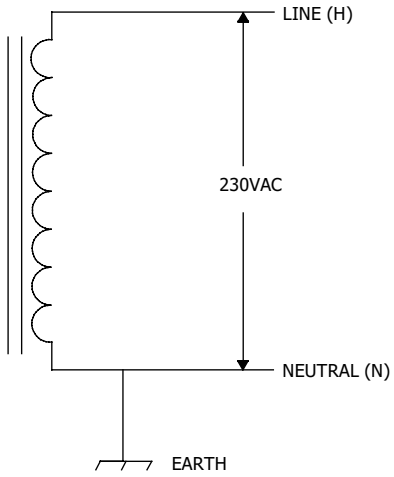
Note:
The two used phases must each measure 120V to neutral or ground.

Note:
Consult the utility company or the transformer manufacturer’s literature to verify that the single leg can supply the required power.

Note:
The Charge Station will only operate properly if it detects the presence of a ground wire connected to a neutral point on the transformer secondary.

⚠ WARNING: Do not use a 3-phase delta-connected transformer secondary without a center tap on one leg and/or without a neutral point available for the required ground connection.

230V Above Ground (Europe) 230V Single Phase



230V Single Phase

⚠ WARNING: The Charge Station is a single-phase device. When connecting the line and neutral wires, take care that the service transformer secondary connection is known, and the wires from the main circuit breaker panel are correctly connected and labeled. The following service connections are primarily used in Europe and Australia (sometimes known as “TT Power Grid”). Please reference the following diagram. The line, neutral, and earth outputs on the illustration correspond to the inputs on the Charge Station.

⚠ WARNING: The line connection must measure 230V RMS to neutral. Earth must also be connected to the Charge Station.

Electrical Requirements for Battery Charging

⚠ WARNING: The Charge Station must be installed by a licensed electrician in accordance with all national and local electrical codes, ordinances, requirements, and all authorities having jurisdiction.

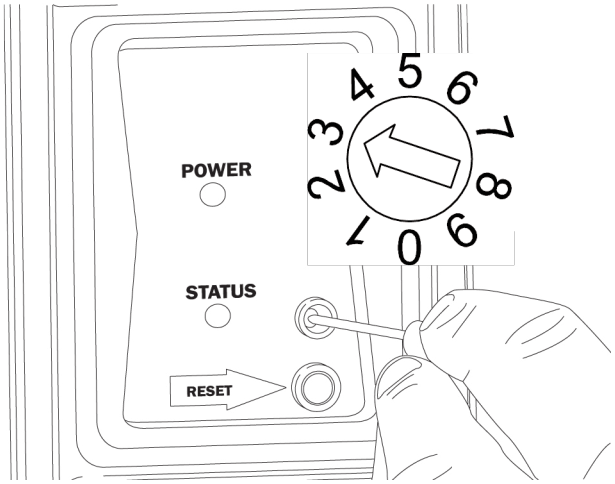
⚠ CAUTION: The AC electrical connection must have a grounded, dedicated service-main. No other loads shall be connected to the same circuit. Use of a non-dedicated circuit could exceed the current rating of the circuit breaker and cause it to trip or open.

⚠ CAUTION: Do not use portable or stationary backup generating equipment to charge the vehicle. This may cause damage to the vehicle's charging system. Only charge the vehicle from utility-supplied power.

Amperage and Breaker Parameters

Note:
The Charge Station has been factory set at 30-amp output for a 40-amp circuit. For all other amperages:

1. Remove the domed cap from the current-adjustment selector (positioned just above the reset button on the front of the Charge Station).



2. Using a small, flat-blade screwdriver, set the current-adjustment selector to the applicable output current-limiting setting, as indicated in Table 1 or Table 2.

Table 1. North American Current-Adjustment Settings

Charge Station Current-Adjustment Setting	Charge Station Output, Amp	Breaker Required, Amp	Wire Required, Gauge	NEMA Receptacle Required (plug-in version)
1	12	15	12	6-15
2	16	20	12	6-20
3	24	30	10	6-30
4	32	40	8	6-50
5	30	40	8	6-50

Table 2. European Current-Adjustment Settings

Charge Station Current-Adjustment Setting	Charge Station Output, Amp	Breaker Required, Amp	Wire Required, mm^2
1	13	16	3.31
2	16	20	3.31
3	20	20*	5.26
4	32	40	8.36
5	30	40	8.36

*Line service breaker; not appliance service breaker

Note:
Only settings 1–5 are operational. Settings 6, 7, 8, 9, and 0 are not used, and the Charge Station will not function under these settings.

Charge Station Mounting Instructions

⚠ WARNING: Read all instructions before installing the Charge Station.

Identify an approximate mounting location for the Charge Station that is within 10 feet (3 m) of the vehicle's charging inlet.

Determine the power source location.

⚠ CAUTION: Verify there is no existing infrastructure behind the selected wall (wiring, plumbing, ductwork, pipes, etc.)

Follow the appropriate instructions for your installation:

- "Finished Wall Charge Station Installation" on page 9
- "Masonry Wall Charge Station Installation" on page 13
- "Molded Plug-Connected Charge Station Installation (North America only)" on page 16

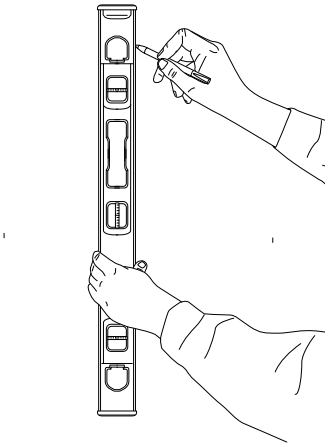
Note:
If wall surface is unfinished (studs only), mount a 36 × 17.5 × 3/8-in. (90 × 45 × 1-cm) plywood surface between the studs and securely fasten in place. Follow "Finished Wall Charge Station Installation" for mounting and "Masonry Wall Charge Station Installation" for wiring.

Mounting Template

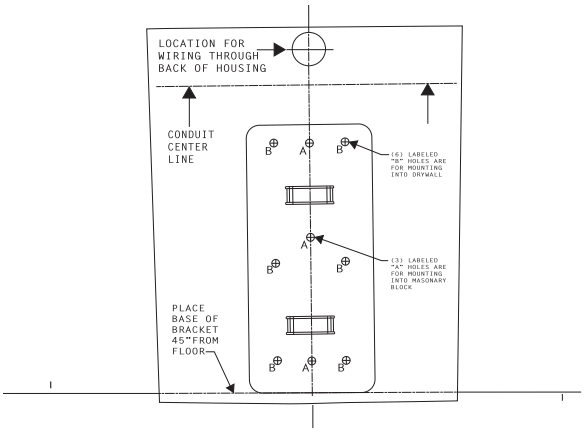
See the back cover of this manual for the Charge Station mounting template.

Finished Wall Charge Station Installation

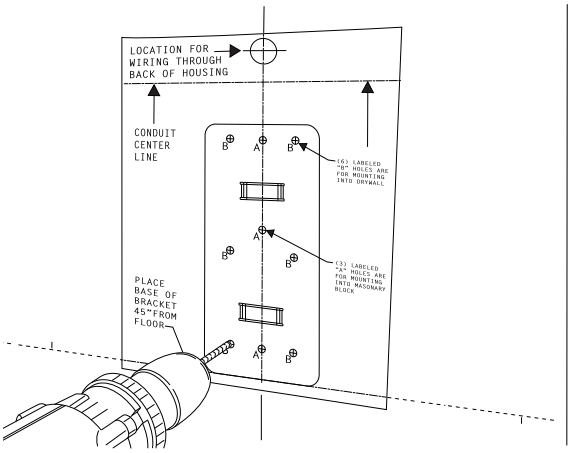
1. Using a stud finder and tape measure, locate and mark a point equidistant between vertical studs and 45 in. (114.3 cm) above the floor surface.



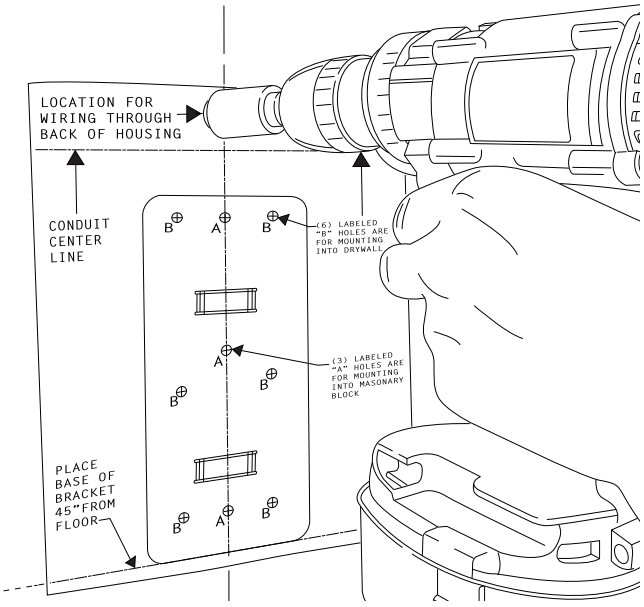
2. From this point, use a level to draw a true vertical line and a true horizontal line on the wall.
3. Retrieve the mounting template on the back cover of this manual.


LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR

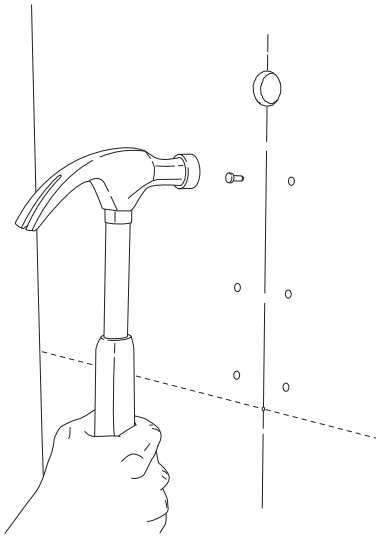
4. Align the hash-marked center and lower horizontal lines of the template to the lines drawn on the wall. Adhere the template to the wall with tape.


LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR

5. Using a 3/16-in. (5-mm) drill bit, drill the six (6) holes marked „B“ on the template.

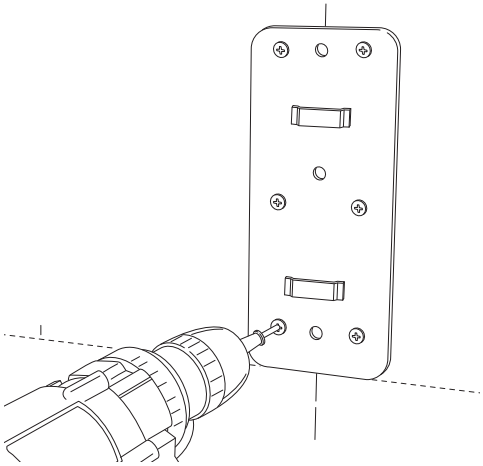

LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR

6. Using a 1 1/16-in. (28-mm) hole saw, drill a wiring-access hole at the location indicated at the top of the template.

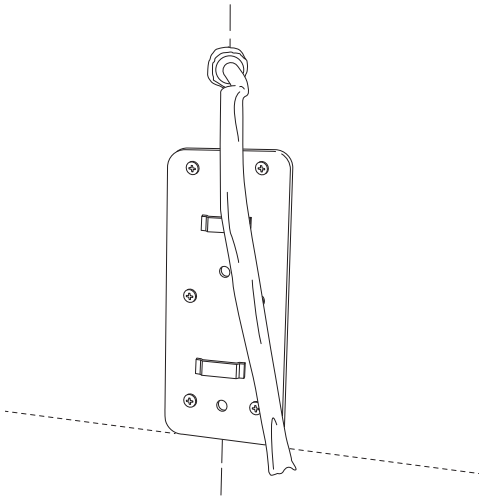


7. Remove the template from the wall. Using a hammer, install a plastic drywall anchor in each of the six (6) „B“ holes.

Note:
Charge Station support-strength requirement is based on a minimum 3/8-in. (1-cm) drywall thickness

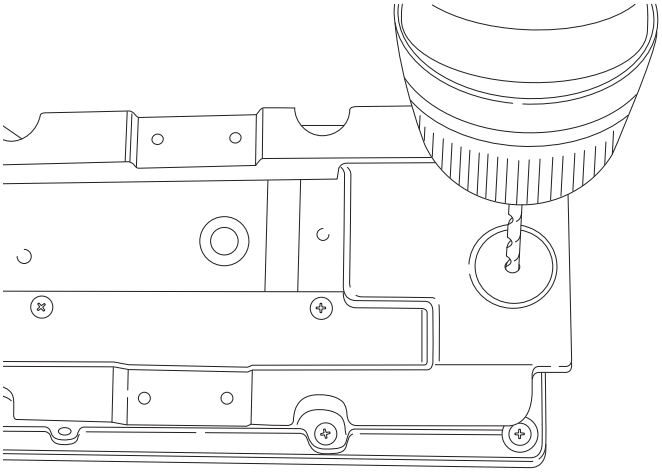


8. Align mounting plate with installed plastic anchors and secure with six (6) #8 pan-head screws.

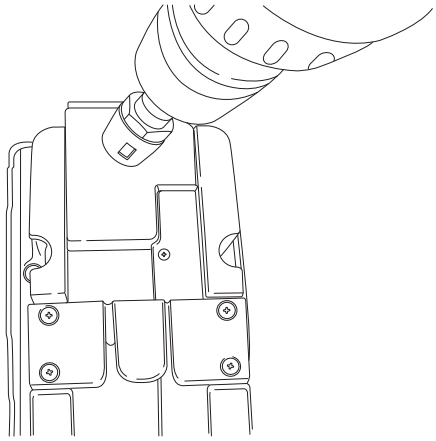


9. Feed sufficient wire from the service panel through the wire-access hole to make connections to the Charge Station terminal block.

Note:
To avoid damage to the front of the Charge Station, place it on a soft or cardboard surface.



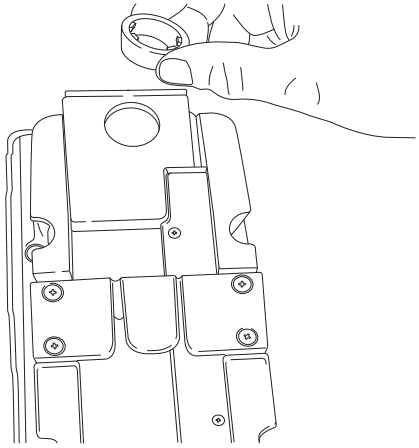
10. Drill a pilot hole in the center of the rear knockout on the Charge Station unit.



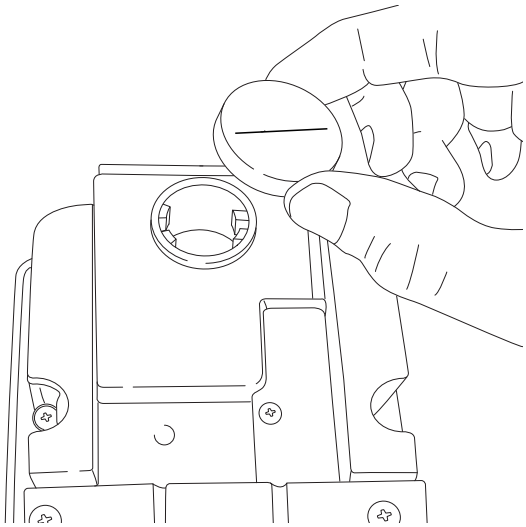
11. Using a 1 1/16-in. (28-mm) hole saw, with the pilot hole as a guide, drill out the rear knockout.

⚠ CAUTION: Use a mid-range speed setting and drill carefully to avoid punching through housing and damaging internal components.

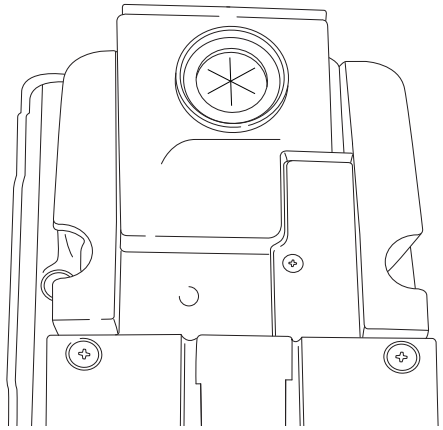
12. Remove debris from wiring chamber.



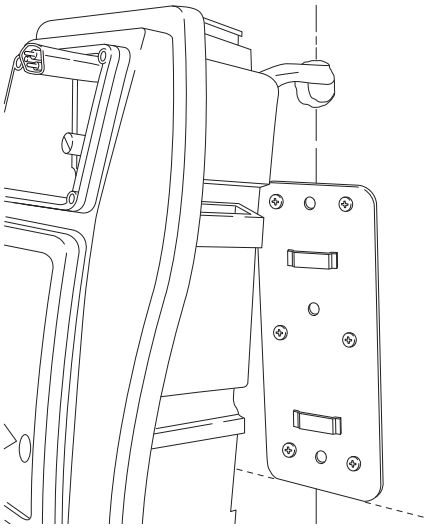
13. **For indoor installation**, assemble the plastic hole-bushing into the knockout and firmly snap into place.



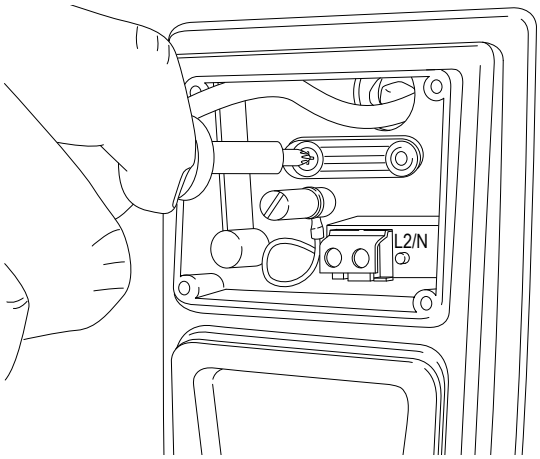
14. Cover the plastic bushing with the self=adhesive foam dust-cover gasket, with the center-slit oriented horizontally.



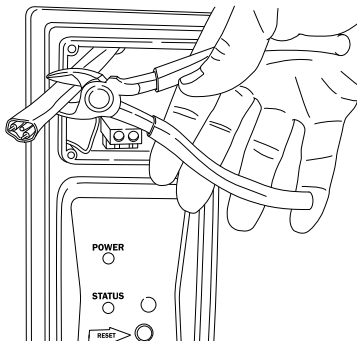
15. **For outdoor installation**, assemble the rubber grommet into the knockout and snap into place.
16. Feed the wire from the service panel, through the dust cover or grommet, and into the Charge Station wiring chamber.



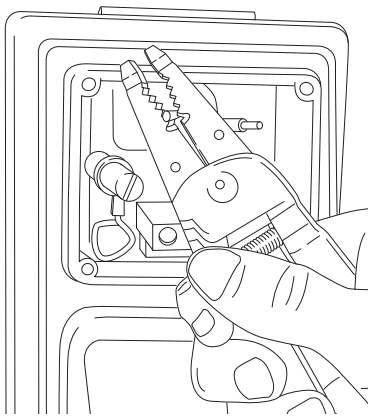
17. Secure the Charge Station to the mounted wall bracket by engaging the tabs on the Charge Station into the slots on the wall bracket. Press firmly and slide the Charge Station down until fully seated on the bracket.



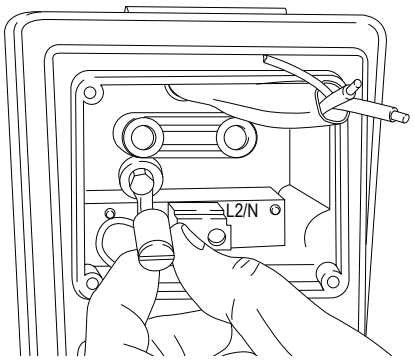
18. Remove the strain-relief assembly from the wiring chamber.



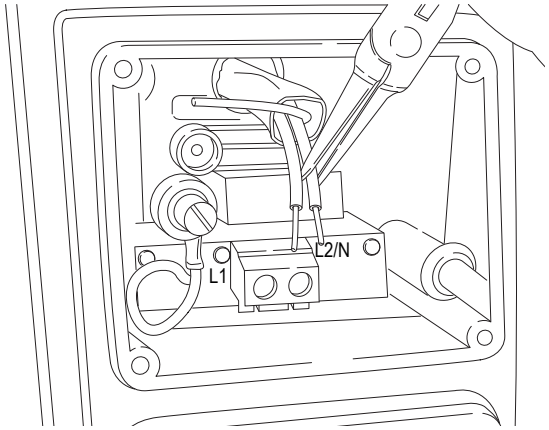
19. Trim the wire to a length sufficient to make the connections to the Charge Station terminal block.



20. Strip back 1 1/4 in. (32 mm) of the wire jacket and 3/8 in. (10 mm) from the ends of the individual conductors.

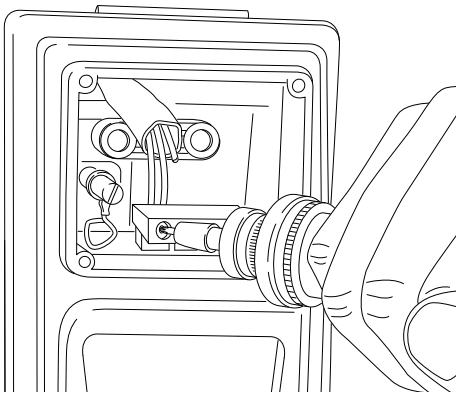


21. Remove threaded ground lug.

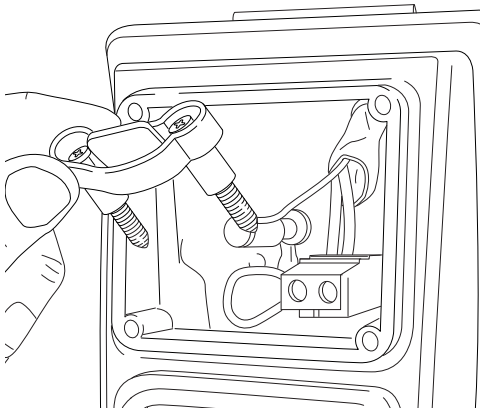


22. Feed the L1 (black) [Europe H (brown)] wire into the L1 [Europe H] terminal slot in the wiring chamber.
23. Feed the L2 (red) [Europe N (blue)] wire into the L2 [Europe N] terminal slot in the wiring chamber.
24. Attach safety ground wire through the slot on the ground terminal. Hand-tighten grounding lug.

Note:
See inside of wiring chamber cover for wiring schematic.



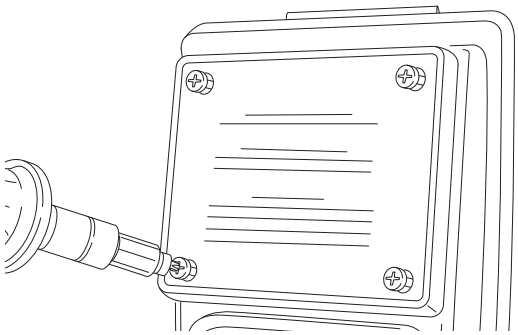
25. Tighten terminal screws to 1.2 Nm (10.62 in-lb).



26. Reinstall strain relief.

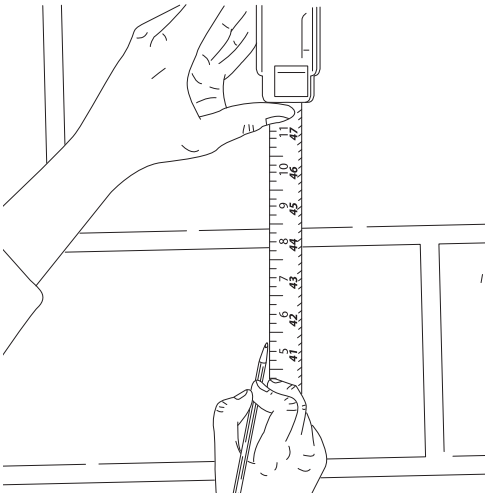
Note:
Select appropriate orientation of insert to achieve proper clamping for wire size used.

⚠ CAUTION: Do not overtighten.

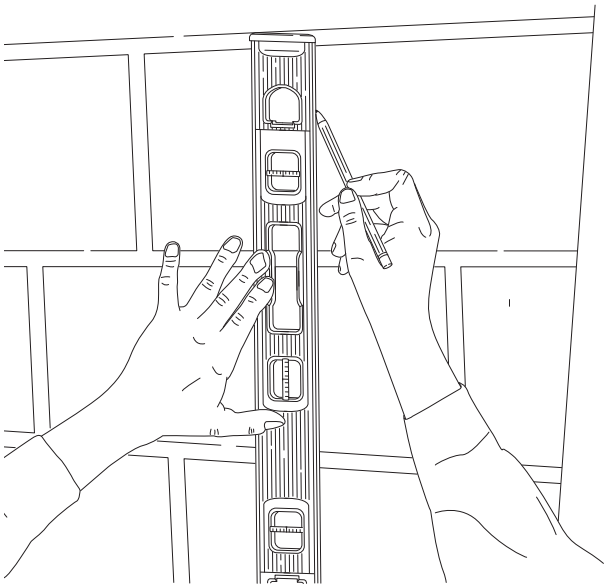


27. Attach the wiring chamber lid with four (4) 3/4-in. (20-mm) square-drive screws.
28. Apply the self-adhesive chamber lid label.

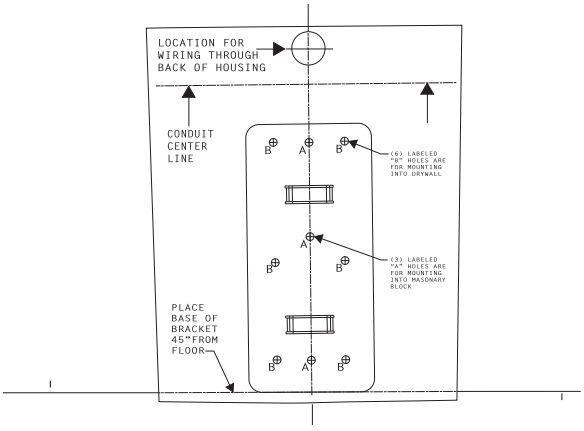
Masonry Wall Charge Station Installation



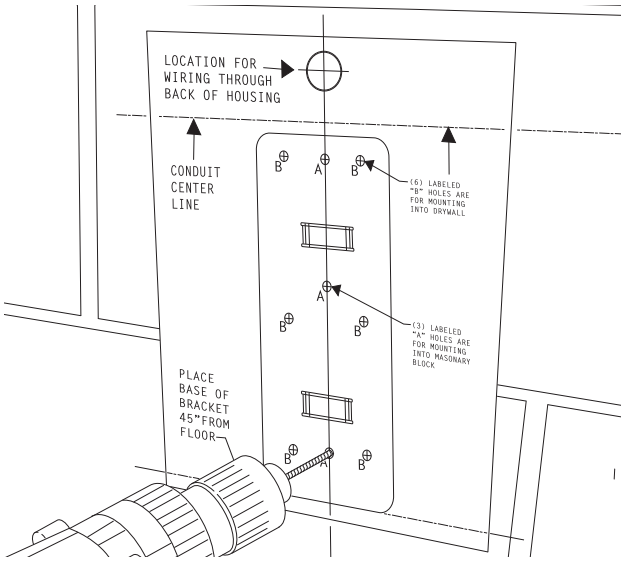
1. Locate and mark a point 45 in. (114.3 cm) above the floor surface.



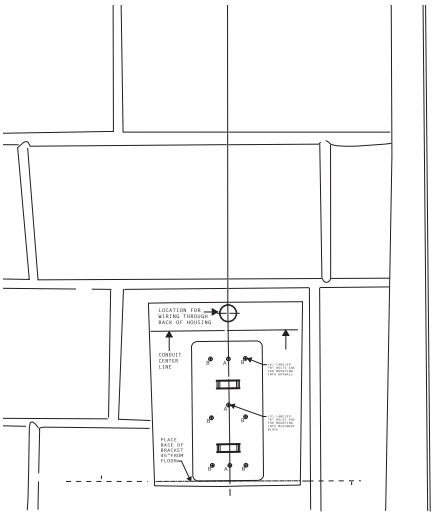
2. From this point, use a level to draw a true vertical line and a true horizontal line on the wall.
3. Retrieve the mounting template on the back cover of this manual.


LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL.
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR

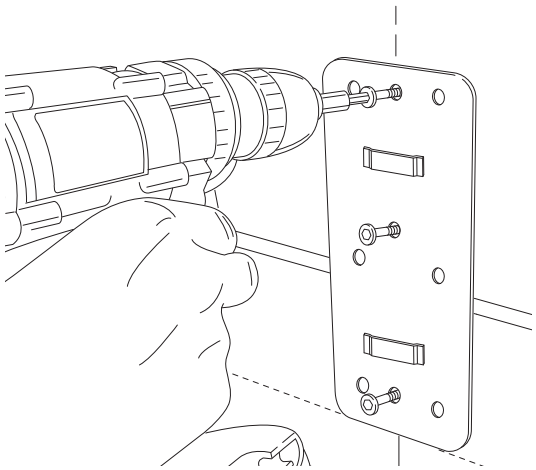
4. Align the hash-marked center and lower horizontal lines of the template to the lines drawn on the wall. Adhere the template to the wall with tape.


LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR

5. Using a 1/8-in. (3-mm) drill bit, drill the three (3) holes marked „A“ on the template.
6. Select a location on the template for entry of conduit into the Charge Station (top, upper left, or upper right).



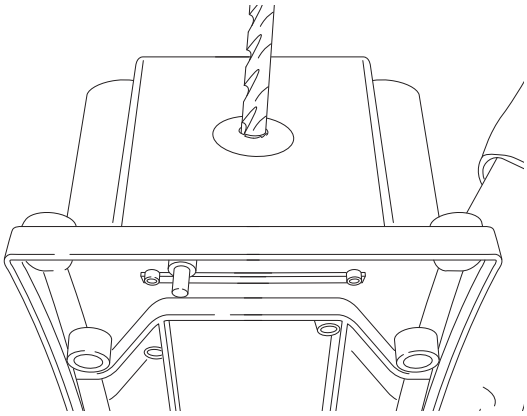
7. Snap a chalk line from the appopriate level line on the template in the direction of the incoming conduit.
8. Remove the template from the wall.



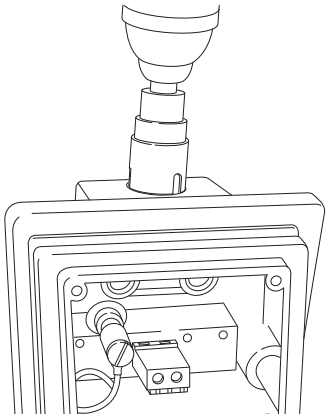
9. Align the mounting plate with the „A“ holes in the wall and secure with three (3) 3/16-in. (5-mm) tapered-head masonry screws.

Note:
To avoid damage to the Charge Station, place it on a soft or cardboard surface.

10. Locate the desired conduit-entry point on the Charge Station housing.



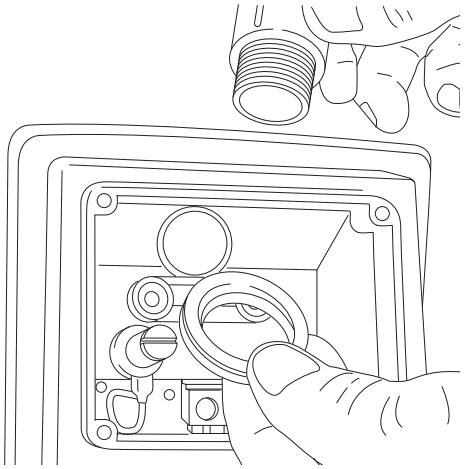
11. Drill a pilot hole in the center of the selected knock-out location.



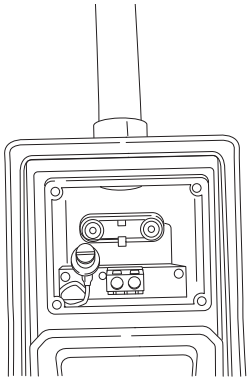
12. Using a 1 1/16-in. (28-mm) hole saw, with the pilot hole as a guide, drill out the knockout.

⚠ CAUTION: Use a mid-range speed setting and drill carefully to avoid punching through housing and damaging internal components.

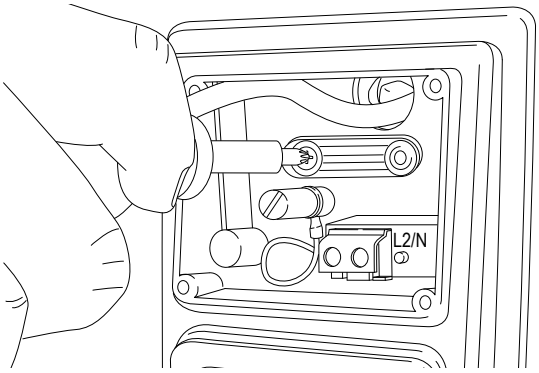
13. Remove debris from wiring chamber.



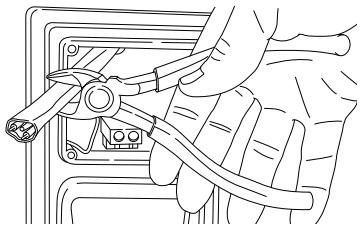
14. Install a 3/4-in. (19-mm) NPT female adaptor with nut and seal into the knockout and tighten securely.
15. Secure the Charge Station to the mounted wall bracket by engaging the tabs on the Charge Station into the slots on the wall bracket. Press firmly and slide the Charge Station down until fully seated on the bracket.
16. Feed the wire from the service panel through the conduit and into the Charge Station wiring chamber.



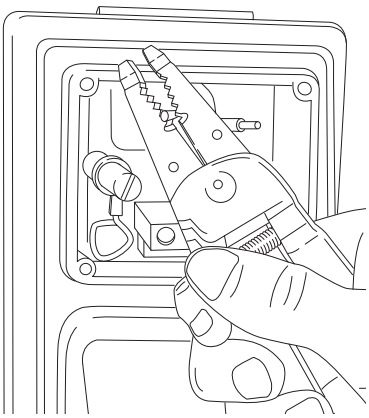
17. Attach offset conduit to NPT female adaptor.



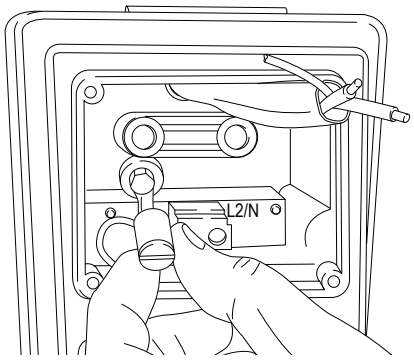
18. Remove the strain-relief assembly from the wiring chamber.



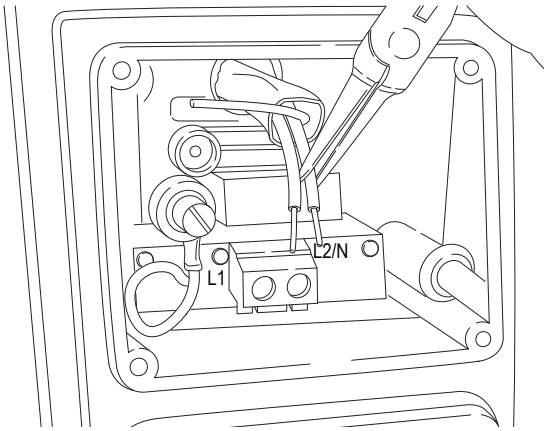
19. Trim the wire to a length sufficient to make the connections to the Charge Station terminal block.



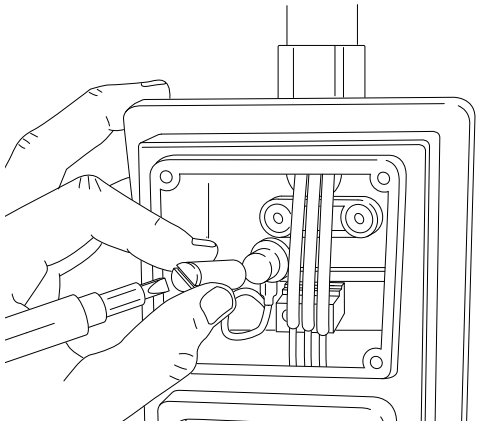
20. Strip back 1 1/4 in. (32 mm) of the wire jacket and 3/8 in. (10 mm) from the ends of the individual conductors.



21. Remove threaded ground lug.



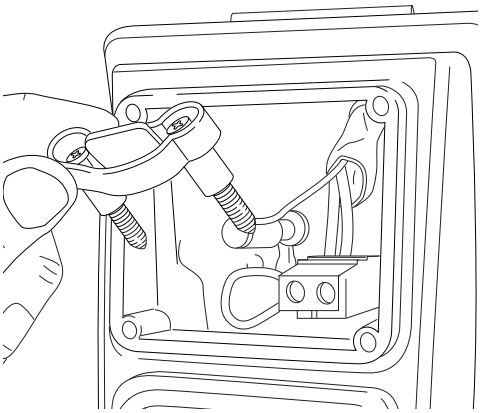
22. Feed the L1 (black) [Europe H (brown)] wire into the L1 [Europe H] terminal slot in the wiring chamber.
23. Feed the L2 (red) [Europe N (blue)] wire into the L2 [Europe N] terminal slot in the wiring chamber.



24. Attach safety ground wire through the slot on the ground terminal. Hand-tighten grounding lug.

Note:
See inside of wiring chamber cover for wiring schematic.

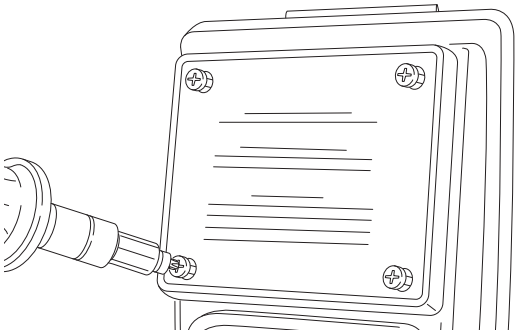
25. Tighten terminal screws to 1.2 Nm (10.62 in-lb).



26. Reinstall strain relief.

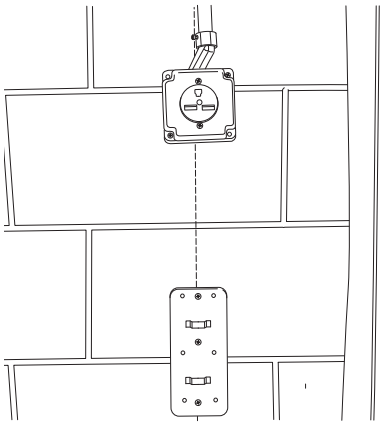
Note:
Select appropriate orientation of insert to achieve proper clamping for wire size used.

⚠ CAUTION: Do not overtighten.



27. Attach the wiring chamber lid with four (4) 3/4-in. (20-mm) square-drive screws.
28. Apply the self-adhesive chamber lid label.

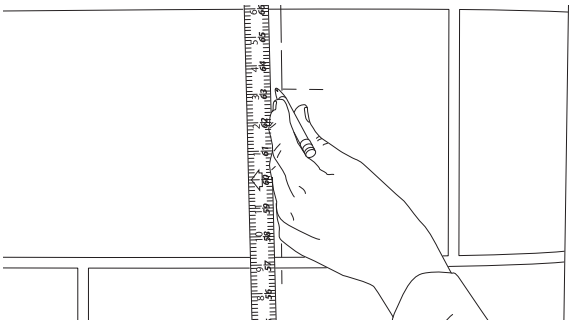
Molded Plug-Connected Charge Station Installation (North America only)



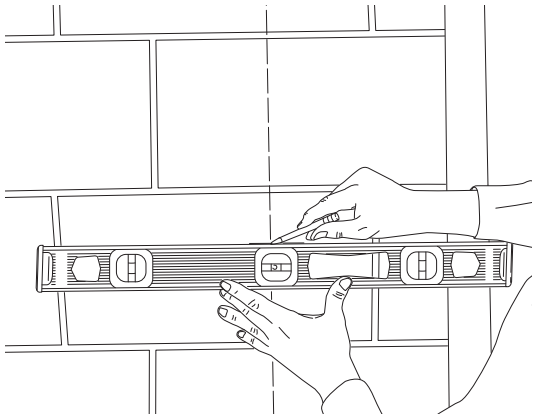
1. Install appropriate outlet box (ground-pin at 12-o'clock position) with top- or side-conduit feed.

⚠ CAUTION: Do not feed the outlet box from the bottom. This will interfere with the mounting of the Charge Station unit.

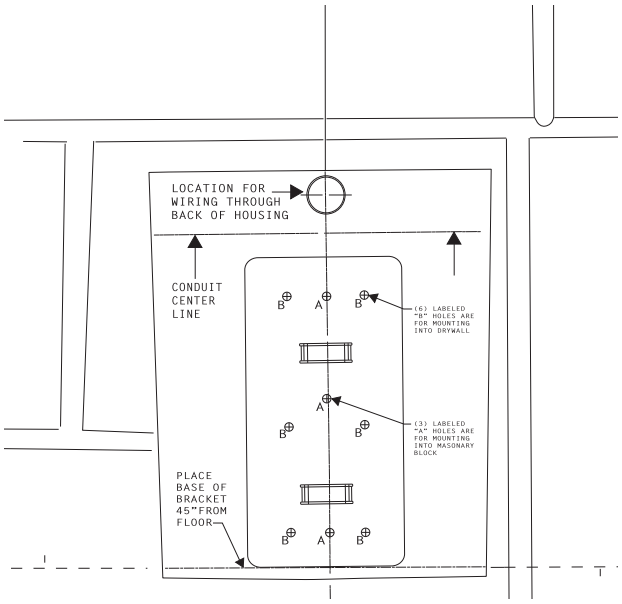
2. Place the outlet box between two (2) studs for finished-wall installation or any applicable location for masonry walls.
3. Install outlet box 61 in. (155 cm) from floor surface to the bottom of the outlet box.



4. Locate and mark a point 16 in. (40.6 cm) down from the bottom-center of the outlet box.



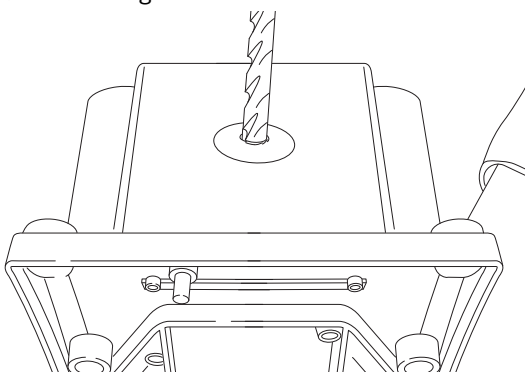
5. From this point, use a level to draw a true vertical line and a true horizontal line on the wall.
6. Retrieve the mounting template on the back cover of this manual.


LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45" FROM FLOOR

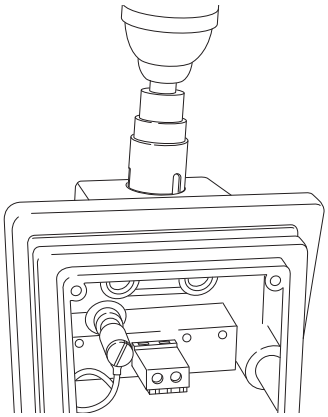
7. Align the hash-marked center and lower horizontal lines of the template to the lines drawn on the wall. Adhere the template to the wall with tape.
8. If installing on a masonry wall, using a 1/8-in. (3-mm) drill bit, drill the three (3) holes marked „A" on the template.
9. If installing on a finished wall, using a 3/16-in. (5-mm) drill bit, drill the six (6) holes marked „B" on the template.
10. Remove the template from the wall.
11. Align the mounting plate with the holes in the wall and secure with three (3) 3/16-in. (5-mm) tapered-head masonry screws for masonry walls or six (6) #8 pan-head screws with anchors for finished walls.

Note:
To avoid damage to the Charge Station, place it on a soft or cardboard surface.

12. Locate the desired conduit-entry point on the Charge Station housing.



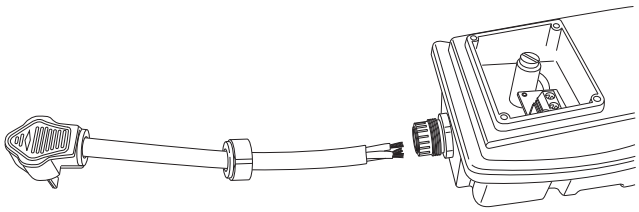
13. Drill a pilot hole in the center of the selected knock-out location.



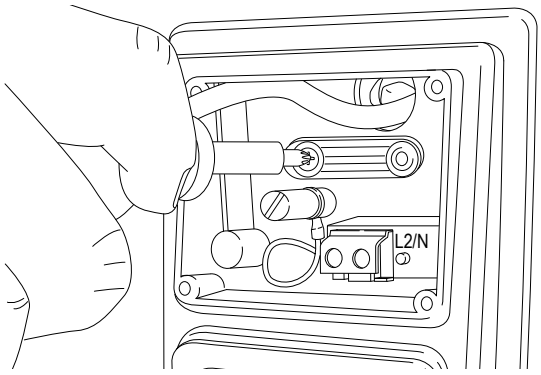
14. Using a 1 1/16-in. (28-mm) hole saw, with the pilot hole as a guide, drill out the knockout.

⚠ CAUTION: Use a mid-range speed setting and drill carefully to avoid punching through housing and damaging internal components.

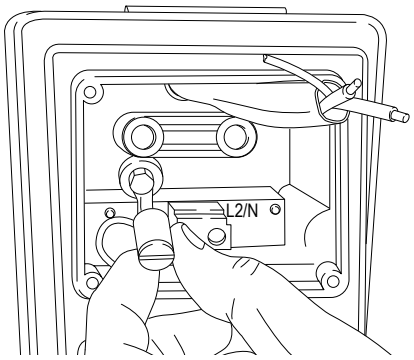
15. Remove debris from wiring chamber.



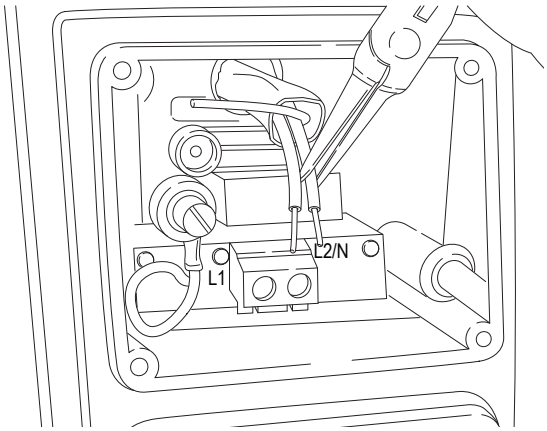
16. Install the 3/4-in. (19-mm) cable gland adaptor with nut and O-ring into drilled 1 1/16-in. (28-mm) hole in the Charge Station. Securely tighten.
17. Assemble the 3/4-in. (19-mm) cable gland cap to the molded plug/cable assembly.



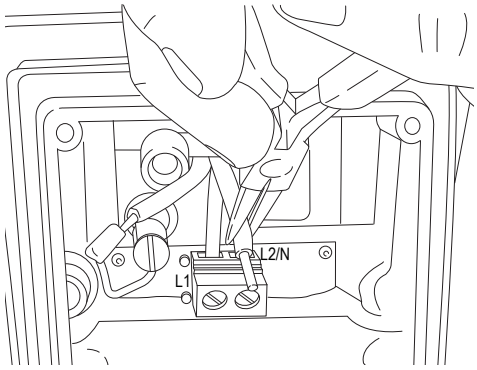
18. Remove the strain-relief assembly from the wiring chamber.



19. Remove threaded ground lug.



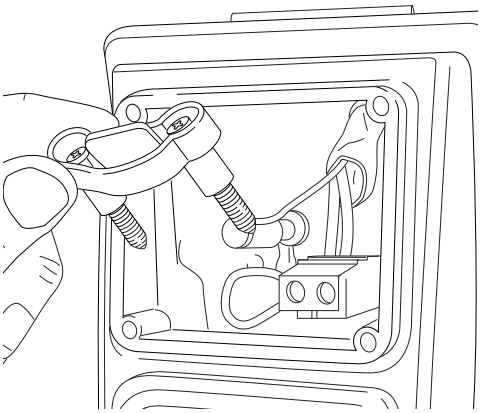
20. Feed molded plug/cable/cable gland assembly through the 1 1/16-in. (28-mm) hole in the housing and orient the conductor wire to the terminal block. Remove strip/retain insulation ends.



21. Feed the L1 (black) [Europe H (brown)] wire into the L1 [Europe H] terminal slot in the wiring chamber.
22. Feed the L2 (red) wire into the L2 terminal slot in the wiring chamber.
23. Attach safety ground wire through the slot on the ground terminal. Hand-tighten grounding lug.

Note:
See inside of wiring chamber cover for wiring schematic.

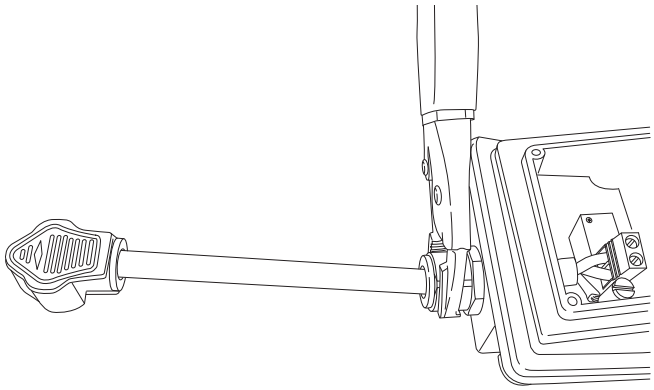
24. Tighten terminal screws to 1.2 Nm (10.62 in-lb).



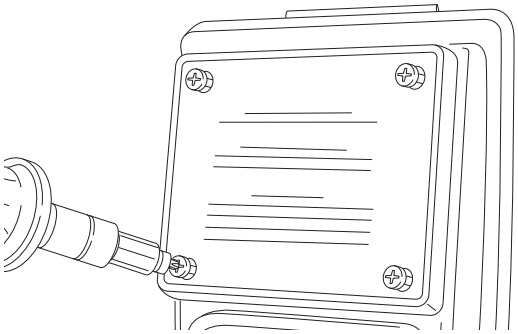
25. Reinstall strain relief.

Note:
Select appropriate orientation of insert to achieve proper clamping.

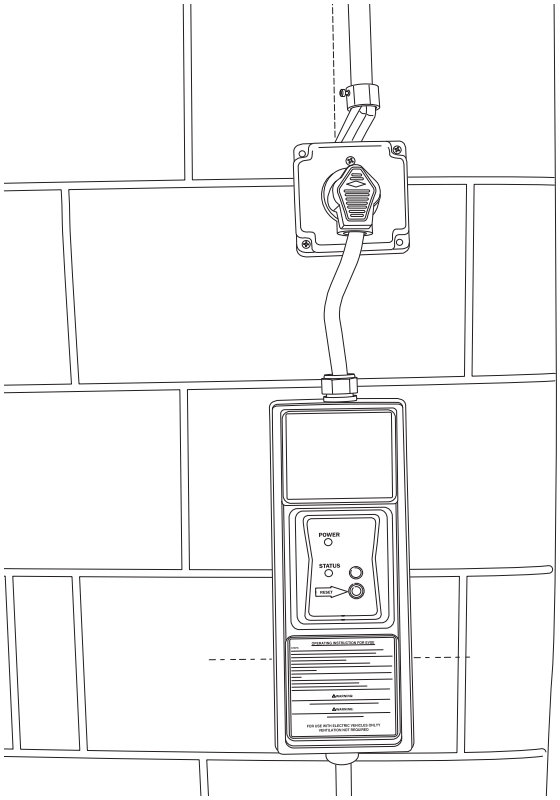
⚠ CAUTION: Do not overtighten.



26. Securely tighten the cable gland.
27. Secure the Charge Station to the mounted wall bracket by engaging the tabs on the Charge Station into the slots on the wall bracket. Press firmly and slide the Charge Station down until fully seated on the bracket.



28. Attach the wiring chamber lid with four (4) 3/4-in. (20-mm) square-drive screws.
29. Apply the self-adhesive chamber lid label.



30. Plug Charge Station plug into NEMA outlet.

Operating Instructions

1. Verify service supply power is available; green POWER indicator LED is illuminated.
2. Retrieve Charge Station vehicle cable and coupler from rear-mounted holder (stowed position); amber STATUS indicator light is illuminated.
3. Connect Charge Station coupler to vehicle; STATUS indicator LED changes to solid green.
4. Charge Station performs safety self-test (audible mechanical clicking sounds); STATUS indicator begins to flash green, indicating vehicle is charging (vehicle may indicate charging with an audible signal or a light indicator; varies by vehicle model). When charge is complete, the STATUS LED will change from flashing green to solid green.
5. Disconnect Charge Station coupler from vehicle; STATUS indicator changes to amber.
6. Return cable and coupler to rear-mounted holder (stowed position) at Charge Station unit.

Note:
Charge Station will automatically resume charging upon restoration of lost service-supply power (US models only).

Power and Status LED Indications

Power LED	Status LED	Condition
(Off)	(Off)	No service supply power
Green solid	Amber solid	Charge Station powered; vehicle coupler not connected
Green solid	Green solid	Waiting to charge
Green solid	Green flashing	Vehicle charging
Green solid	1–2 red flashes every 2 seconds	Pilot charging error*
Green solid	Solid red, then green flash every 2 seconds	Ground fault detected*
Green solid	Red flashing	Ground monitor interrupted*
Green solid	Red solid	Operation fault*
Green solid	(Off)	Operation fault*

*See “Troubleshooting” on page 20 for suggested solutions.

- No illumination
- Solid illumination
- Flashing illumination

Troubleshooting

If there is a charging issue proceed with the following steps. If the issue persists after three attempts call Bosch at 1-877-805-EVSE (3873) for assistance.

Problem Indicated by LED Status	Solution
Pilot charging error	1. Verify supply-side power. The green POWER LED should be on. If green POWER LED is off, locate load center/panel and reset breaker. 2. Press the master clear RESET button on the front panel of the Charge Station to attempt a charge-restart. 3. If the red STATUS LED remains on, disconnect the Charge Station coupler from the vehicle charge port, wait 10 seconds, and reconnect the coupler.
Ground fault detected	1. Disconnect main service power at service panel. 2. Disconnect the Charge Station coupler from the vehicle. 3. Inspect the Charge Station connector and the vehicle charge port verifying both are clean and undamaged. If vehicle charge port needs cleaning, follow manufacturer instructions for cleaning. Clean Charge Station connector with a dry or damp cloth if necessary. 4. Restore main service power. 5. Reconnect the coupler to the vehicle port.
Ground monitor interrupted	1. Disconnect main service power at service panel. 2. Disconnect the Charge Station coupler from the vehicle. 3. Inspect the Charge Station connector and the vehicle charge port verifying both are clean and undamaged. If vehicle charge port needs cleaning, follow manufacturer instructions for cleaning. Clean Charge Station connector with a dry or damp cloth if necessary. 4. Restore main service power. 5. Reconnect the coupler to the vehicle port.
Operation fault	1. Verify supply-side power. The green POWER LED should be on. If green POWER LED is off, locate load center/panel and reset breaker. 2. Press the master clear RESET button on the front panel of the Charge Station to attempt a charge-restart. 3. If the red STATUS LED remains on, disconnect the Charge Station coupler from the vehicle charge port, wait 10 seconds, and reconnect the coupler.

Ground Fault Circuit Interrupt (GFCI) Tripped

If the Charge Station detects a ground fault, power will be interrupted and the STATUS LED will illuminate (red flash with intermittent green). The Charge Station will attempt to reset automatically and re-attempt charging (see note below on European models). If the fault condition persists after an initial automatic attempt, per the code, the Charge Station waits 15 minutes before a second attempt is made. A total of four attempts will be made to restore vehicle charging. If the charging mode cannot be restored, the STATUS LED will illuminate solid red, and the unit will stay in fault mode.

Note:
European models—Automatic reset feature after ground fault (STATUS LED will be solid red) does not apply to European models. European standards dictate that user intervention is required by pressing the master clear RESET button on the front of the Charge Station housing. If ground fault condition clears, Charge Station will resume charging.

Missing Ground

If the Charge Station detects a missing ground connection (rapid red flashing LED), power will be interrupted and the unit will not be capable of charging vehicle until a ground connection has been detected. Disconnect service power (breaker) and disconnect vehicle coupler from vehicle and contact a qualified Bosch technician to validate the presence of a proper ground.

Maintenance

⚠ **WARNING: Do not attempt to service the Charge Station. The Charge Station has no user-serviceable components.**

If the unit is not operating properly, contact Bosch at 1-877-805-EVSE (3873) for assistance.

The Charge Station requires no scheduled maintenance, only periodic cleaning.

Always be sure to return the charging cable and coupler to its proper storage area to avoid potential damage to the unit and to prevent potential trip hazards.

Regularly inspect the Charge Station unit and charging cable for signs of damage. If the Charge Station unit or charging cable are damaged contact Bosch for service or repair.

Cleaning

⚠ CAUTION: Always turn off service power (supply-side power at the main service panel) before cleaning the Charge Station and/or charging cable.

⚠ CAUTION: Never use cleaning solvents, abrasive powders/liquids or scouring pads to clean the Charge Station and cable/coupler.

Clean the Charge Station unit and cable/coupler with a soft damp or dry cloth to remove dust or dirt.

Storage and Moving

Unit storage temperature range: -58°F to +176°F (-50°C to +80°C)

Contact Bosch for Charge Station relocation or storage requirements at 1-877-805-EVSE (3873).

Limited Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO THE ORIGINAL PURCHASER OF Bosch Automotive Service Solutions LLC Charge Station product.

Power Xpress Charge Station is warranted against defects in materials and workmanship for one year from the date of installation.

Charge Station Cables and Connectors are warranted against defects in materials and workmanship for 90 days from the date of delivery.

This warranty is only valid to the original purchaser of the Charge Station and is not transferable. All warranty claims must be made within the warranty period and proof of purchase must be supplied. This warranty does not cover the cost of freight to return the Charge Station to Bosch Automotive Service Solutions LLC.

The sole and exclusive remedy for any Charge Station found to be defective is repair or replacement, at the option of Bosch Automotive Service Solutions LLC. The existence of a defect shall be determined by Bosch Automotive Service Solutions LLC in accordance with procedures established by Bosch Automotive Service Solutions LLC. No one is authorized to make any statement or representation altering the terms of this warranty. This warranty covers only those defects that arise as a result of normal use of the Charge Station and does not cover any other problems including those that arise as a result of abuse, neglect, improper maintenance, care or modification, operation outside of the Charge Station's specifications or in a manner inconsistent with instructions regarding use. Bosch Automotive Service Solutions LLC does not make any representation or warranty regarding the continuous availability of electrical service to the Charge Station.

This warranty gives the original purchaser specific legal rights. The original purchaser may also have other rights which vary from state to state. To the extent that this warranty is inconsistent with applicable law, this warranty will be deemed modified to be consistent with such local law.

Disclaimer

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The Charge Station should be installed only by a licensed electrician and in accordance with all local and national codes
and standards.

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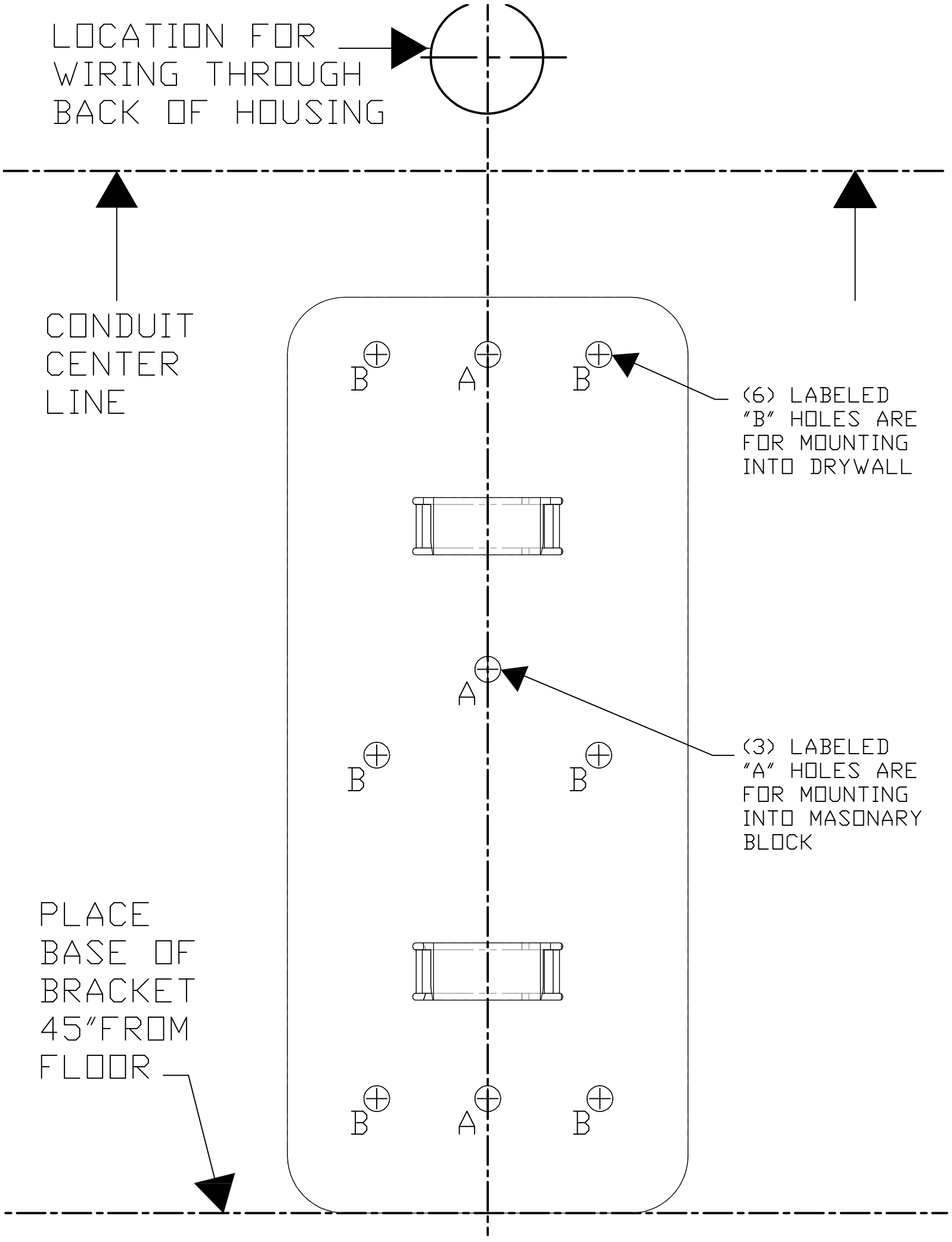
LOCATION FOR WIRING THROUGH BACK OF HOUSING
CONDUIT CENTER LINE
B
A
B
(6) LABELED "B" HOLES ARE FOR MOUNTING INTO DRYWALL
A
B
B
(3) LABELED "A" HOLES ARE FOR MOUNTING INTO MASONARY BLOCK
PLACE BASE OF BRACKET 45"FROM FLOOR
B
A
B

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